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ABSTRACT

The incorporation of microcomputers into the traditional English classroom is currently in a transitional phase. Each new use of the computer affords teachers new possibilities for teaching approaches, and the succession of uses already employed suggests that each experiment increases the distance from traditional methods. This can be illustrated by describing the five major uses of the computer in English: drill, tutorial, prewriting or invention, word processing, and revision. The latter three are obvious departures from conventional learning techniques. Important advantages of computer assisted instruction are that it engages all students in the work, allows more individual attention from both peers and instructor, and lends itself to a calm and positive atmosphere. Most importantly, computers eliminate one of the more annoying problems of revision--messiness. Computer assisted instruction also has disadvantages, however, including problems both for students who cannot type and for teachers unaccustomed to the physically exhausting routine of monitoring students individually. The microcomputer is not a passing fad, but a functional tool that has been effectively integrated into many educational disciplines, including English. Teachers should take advantage of the technology that has aroused the interest and attention of students and direct its use to their advantage. (HTH)

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Incorportating the Microcomputer into the Traditional English Classroom

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Incorporating the microcomputer into the traditional English classroom cannot be accomplished in one easy move. There are degrees of integration through which we must pass. Right now we are in a transitional phase during which the integration is a slow, often painful and very time-consuming process, mainly of experimentation through trial and error. We continue using traditional approaches while innovating with computer techniques. Ultimately, the techniques and the perspective resulting from computer usage will be vastly different from those of traditional approaches, but in this transition phase we naturally must build on what we have done in the past. However, each new use we make of the computer affords us new possibilities for teaching approaches, and the succession of uses already employed suggests that each experiment increases the distance from traditional methods. This can be illustrated by describing the five major uses we are currently making of the computer in English:

1. Drill is used for the rote, repetitive tasks through which we have traditionally taught the "basics." For example, a drill exercise might ask students to pick out the subject, verb, and object in a series of sentences; it would give them a response of right or wrong after each answer.

2. Tutorial is more interactive than drill; although it still deals with the basics, it requires more student thinking and provides a more custom tailored response to the student's answer.

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3. Prewriting or invention is highly interactive, asking the student to participate fully in a discovery process. Rote responses are not possible.

4. Word processing (composing) involves the creative act in which the machine is used to reduce the physical drudgery of setting words on paper.

5. Revision utilizes the capabilities of the computer to perform, quickly and efficiently, editing functions such as deleting, adding, moving text, and formatting.

Drill and Turorial

Two of the earliest and most common educational applications of computers are drills and tutorials which are used in many disciplines, including English. Such programs help students with problems identified by the classroom teacher. They offer an alternative to the traditional worksheet/workbook approach to grammar problems, they can be run by the student independently, and they require little or no teacher intervention. Most such programs are individualized to some degree and many offer an allure and a challenge similar to those of video games.

Drill programs offer practice, usually with grammar and mechanics, building on concepts that have been explained in class. They call for student responses and tell the student when an answer is incorrect, but usually offer no explanations. Tutorials, on the other hand, explain a concept, show examples, ask questions, and give appropriate feedback. Thus tutorials can be used when a student misses an explanation of a concept in the classroom or needs remediation. Tutorials may also encompass drill work. Both types of computer programs are an expansion and refinement of classroom work and allow the classroom teacher more time to deal with concepts.

Prewriting or Invention Programs

Prewriting or invention programs help students with the discovery or brainstorming phase of writing. Some prewriting programs are quite general and, therefore, designed to be used for any type of writing assignment; others are specific or geared to a particular type of essay. Some can be used alone; some in conjunction with larger writing systems such as Writer's Workbench or Wordswerth II. Most combine explanatory material with questions students must answer about their chosen topics. The student is led step by step through the discovery process, being encouraged to think about the topic creatively and to make decisions that will be incorporated into the composing phase of the paper. Prewriting programs, thus, help students decide what to include, what order to include it, what audience to target, what point of view to take, etc.

The advantages that prewritng programs offer to both students and teachers illustrate their difference from traditional classroom approaches to this phase of writing. When assigned as homework, they give the student freedom not afforded in the classroom. The students can do the programs at times that best fit their schedules, and they can work at their own pace. While the same might be said for traditional homework assignments, working on the computer seems to make invention less a task and more an enjoyable activity. This is particularly true when students work together or side by side and can compare their responses as they are working. These programs also have an advantage over traditional forms because they force students to work through their topics step by step; students must answer a

series of questions to complete the program. No longer can they say, "I'll work that out later." If the programs provide a printout of student responses, this can be handed in as an assignment and checked by the instructor.

Prewriting programs give teachers opportunities unavailable with traditional methods. The greatest boon is their effect on utilization of class time. Not only can prewriting exercises be omitted during class periods, but the time necessary for explanation of any particular type of writing can be decreased. This is possible because only general explanations of assignments are necessary; specifics for each different type of essay can be given in the program. In many ways having these explanations in the program instead of in the text is more effective because students are forced to read them in order to do the program, especially if these explanations are made prerequsite to the printout they receive at the end of the program. Because such programs have the potential for freeing class time, classroom work can concentrate on discussion of topics, problems, etc. and on the practice of writing itself. Probably the most significant difference from traditional prewriting methods is that students spend more time on this phase when they use the computer.

Word Processing

The word processing capabilities of the microcomputer offer composition students an alternative to the traditional pen-and-paper approach to writing. Students can be introduced to the wonders of word processing in one class period. After a brief explanation of the new vocabulary that they will be using, they need a controlled hands-on experience with computers to see what

the computer can do for the writer, that is, how easy it is to add, delete, and move letters, words, sentences, and paragraphs. They then need to be exposed to the computer's ability to store material, to format it, and to print it out.

Even those students who are initially reticent to use computers are eager to continue after about a half hour's exposure to word processing. They should be allowed to experiment, to receive individual help, and to share their experiences with one another. As time passes, the exchanges between students and especially between student and teacher become more composition oriented and less computer oriented.

One feature of word processing that attracts students is the fact that when they type their first drafts, they are in effect also doing part of their final drafts because those parts of the essay that are statisfactory need never be rewritten or retyped. Once the rough draft is typed, it can be saved on a disk. (It can also be printed out if the instructor wants a hard copy.) The essay can subsequently be "called up" and edited as many times as necessary. Each edition can either be stored on the disk separately, or it can be written over previous drafts. Each edition can also be printed out, if desired. Thus the student always has a "clean copy" of the essay and can submit as many drafts as desired without the constant rewriting that the traditional pen-and-paper approach requires.

Another convenience afforded by word processing is that the student can store a title page on a disk, call it up for each new essay, simply change the title and date, and print it out, thereby saving typing/writing time.

After using the word processing capabilities of a computer, students often find typewriters cumbersome and inefficient and pen-and-paper composing nearly unbearable.

Revision

Some English instructors have been criticized for taking class time to teach word processing. This criticism can easily be answered when one sees the possibility of integrating the learning of word processing with the teaching of English. Of the several ways this can be done, two activities help illustrate that such integration is possible. One is an exercise on mechanics; the other, the revision of papers.

An exercise on mechanics can be used profitably after just one period of word processing instruction. For this exercise, the instructor selects from student papers sentences that contain mechanical errors. These are transferred to disks which each student uses during the session. The sentences can be discussed one by one with each student changing the sentence to correct the mechanical error. This gives a good review of word processing since students must use the editing techniques already learned. The instructor can ask a student to read the corrected version of a sentence, and the error can be discussed. After a few sentences done in this manner, students can complete the assignment on their own.

Student reactions to this type of exercise are positive. Whereas in the traditional classroom they often fear the teacher will pick their work to read, put on the board, or copy on the overhead, students like to see their sentences on the computer screen. In fact, a few feel slighted when their errors are not

chosen. Doing this exercise on the computer also seems to be more fun for students than doing it in the traditional classroom. Students often forget they are working on grammar and punctuation because they become so engrossed in word processing. Of course, at first there are many questions about word processing techniques, but these decrease with time and only "English" questions are left. A profitable by-product of this exercise is that students get very picky. They want everything in both word processing and grammar to be correct. They want the material on the screen to be perfect.

A second way to integrate word processsing with the teaching of English is to revise papers on the computer. To do this one student paper that has wording problems can be copied onto the student disks. The class can then be asked to look at paragraph one and tell what's wrong with it. They will pick out mechanical errors first, which is a good start. The instructor can then read the paragraph aloud, emphasizing sound, and ask for possibilities of different wording sentence by sentence. When paragraph one is complete, getting someone to read his/her revised version is no problem. The instructor can continue with paragraph two, but give less direction. A good strategy is to walk around and point out ineffective wording to help individual students see the possibility for changes. After paragraph two, students will begin to work on their own. Of course, the rate at which they proceed will vary, but this does not matter on the computer as it sometimes does in the traditional classroom. As a matter of fact, students seem to work considerably faster on the computer than on paper. At the end of the session, the instruc-

tor can pick a good revision and print it out to show not only the possibilities for revision but also the efficiency of word processing. This revised version can then be given to the student whose paper was used.

This exercise helps students learn a variety of lessons about revision. First, they begin to realize that revision is a long, meticulous process. Second, they learn what revision is, something few freshmen have any idea about. The word processor has an advantage here because when words are deleted, they're gone. The student must think of fresh wording and is less influenced by what <u>was</u> there. When students have a clean version to work from, errors are easier to spot. Obviously, the word processor also destroys the notion that words are sacred and cannot be changed. In addition, asking students to read their versions, or to share them with others if networking is available, is a helpful way to demonstrate what revision is to students who do not understand.

Most important, word processing encourages revision. Once the revision ball gets rolling, it is catching. When students start to change wording and see how easy it is to move words around, they want to keep going. They get very critical and some, fortunately, end up changing all the wording in a paragraph or completely rethinking the original version. When less motivated students see those around them busily deleting, adding, and moving words, they are prodded by peer pressure to try. Many find that revision is less painful than they thought.

Advantages of Computer Assisted Instruction

Drill, tutorials, and prewriting programs are obvious departures from conventional learning techniques. Likewise, using word processing for composition and revision illustrates distinctons between computer instruction and traditional methods for teaching English. One important advantage of computer instruction is that every student must work; this helps eliminate the common problem of just a few students participating, as is often the case, for example, when using the overhead projector. Not only do students participate, but they do so with a high level of involvement. The intensity that surrounds arcade games transfers easily to academic work, an absorption resulting in a high level of concentration.

A second advantage of the computer is the possibility for more individual attention from both peers and the instructor. The teacher can walk around and see each student's work. Thus, a student who is lagging behind or just does not understand can be encouraged on the spot. This is particularly advantageous for reticent students who are embarrassed to ask questions in front of the whole class. All they need do is raise their hands, and they can have a private conference with the teacher. Further, these students can forget about themselves and concentrate on the screen before them. In general this increased immediacy seems to prompt students to work faster and more efficiently on the computer.

A third advantage of computer instruction is the positive atmosphere it seems to create. The informality of the computer room lends itself to a calm, pleasant, and casual atmosphere,

which definitely affects learning. Students seem to enjoy the flexibility and the freedom from a rigid class structure. They particularly benefit from the casual contact with peers and the teacher while they are working. For example, as the instructor is walking around, he/she can read aloud a particularly good revision, thus encouraging students to continue. Likewise, it is not uncommon in this environment to see several students grouped around one computer trying to solve another student's problem or to see a student seeking the opinion of his/her neighbor. Ironically, one of the greatest fears educators have voiced about computer assisted instruction -- isolation of students -- has not only been proven unfounded, but the exact opposite has occurred. Computer instruction actually encourages students to interact with each other.

Most important, computers eliminate one of the most annoying problems of revision with traditional equipment -- messiness. With word processing, students always have a clean version to work on. Errors are easier to detect and students are not discouraged by having numerous sheets of paper containing crossouts, asterisks, and arrows which interfere with critical reading.

Problems with Computer Assisted Instruction

Along with the advantages of computer assisted instruction come disadvantages. Students who do not type obviously have difficulties and should be encouraged to learn this skill. Good computer programs exist for teaching typing. The availability of machines for doing exercises, running prewriting programs, practicing writing out of class and actually composing papers varies from one institution to another. For example, many

students become enamored with word processing in class only to find that the computer lab is not open at times when they are free. Or they arrive at the lab ready to write and cannot get a machine. These frustrations can squelch the best intentions to use word processing.

For the instructor, there are more difficult problems to overcome. The teaching situation is much different from that in the traditional classroom. No longer is the teacher a fixture in the front of the room, but a moving facilitator who must teach from any vantage point and without such classic accoutrements as a blackboard, a desk, and a book. In addition, the room set-up and the nature of computers make this type of instruction very tough work physically. Just keeping 20+ machines operating, especially with beginners who lose files and mess up the screen, can be exhausting.

Overall Observations

While all five computer uses in English involve differences from the traditional classroom methods, word processing and revision represent the most radical departure because the perspective, the type of interaction, and the role of the teacher are so changed. In the traditional classroom, interaction is between the student and the instructor. On the computer it is between the student and the writing. Because the student is facing the screen rather than the teacher, the whole perspective of the learning environment is changed. As the teacher stands behind the student to view his/her work, the focal point becomes the writing on the screen rather than the teacher. Instead of con-

fronting the student as in the conventional set-up, the instructor becomes a sort of alter ego focusing on the writing in the same way the student does. Gone is the traditional teacher-student relationship that often hindered the writing process.

In the computer lab the student naturally takes the initiative in the learning process. The teacher may even feel unneeded, which is one of the main fears opponents of computer instruction have voiced. But if we consider this situation in a larger perspective, perhaps we find a clue to the real meaning of this new student-teacher relationship. In the past, the teacher was the center of all knowledge, the giver of wisdom; in the computer age the teacher becomes the agent of knowledge, a sort of catalyst who makes the acquisition of knowledge possible. If we look closely, we see that this is the ideal for which teachers since Socrates have been striving. In the traditional environment, we fell short of the goal almost by default. Now the technological revolution has brought this ideal within our reach.

In short, using the computer for teaching English has the advantage over traditional methods because it promotes a more personalized, customized type of learning in which students can participate more fully in their own learning.

Conclusion

The microcomputer is not a passing fad. It is a functional tool that has been effectively integrated into many fields, including education, and into many educational disciplines, including English. Our students will be coming to us increasingly more familiar with and eager to use computers. As educators, it is our duty to take advantage of the technology that has

aroused the interest and attention of our students and direct its usage advantageously. We have a choice: we can accept the challenge and take this opportunity to join our students in the educational and technological mainstream, or we can stick with the tried and not always so true traditional approaches to teaching English.